What is claimed is:

1. A diagonal testing method for flash memories, comprising the steps of:

(a) erasing a flash memory cell array;

(b) programming cells of the flash memory cell array except in a first diagonal;

(c) reading cells in the first diagonal of the flash memory cell array;

(d) programming the cells in the first diagonal of the flash memory cell array; and

(e) reading the cells of the flash memory cell array except in the first diagonal.

2. The diagonal testing method for flash memories of Claim 1, further comprising the steps of:

(f) programming cells in a second diagonal of the flash memory cell array; and

(g) reading the cells in the first diagonal of the flash memory cell array.

3. The diagonal testing method for flash memories of Claim 1, wherein the first diagonal is a -45° line from the upper left to the lower right of the flash memory cell array, and the second diagonal is a +45° line from the lower left to the upper right of the flash memory cell array.

4. The diagonal testing method for flash memories of Claim 1, further comprising the following step after step (a):

reading the cells of the flash memory cell array except in the first diagonal.

5. The diagonal testing method for flash memories of Claim 1, further comprising the following step after step (b):

reading the cells of the flash memory cell array except in the first diagonal.

6. The diagonal testing method for flash memories of Claim 1, further comprising the following step after step (d):

reading the cells in the first diagonal of the flash memory cell array.

7. The diagonal testing method for flash memories of Claim 1, further comprising the steps of:

(h) erasing the flash memory cell array;

(i) programming the cells in the first diagonal of the flash memory cell array in a direction opposite to the first diagonal; and

(j) reading the cells of the flash memory cell array except in the first diagonal.

8. The diagonal testing method for flash memories of Claim 7, further comprising the following step after step (h):

reading the cells in the first diagonal of the flash memory cell array in a direction opposite to the first diagonal.

9. The diagonal testing method for flash memories of Claim 7, further comprising the following step after step (i):

reading the cells in the first diagonal of the flash memory cell array in a direction opposite to the first diagonal.

10. The diagonal testing method for flash memories of Claim 1, further comprising the steps of:

(h) erasing the flash memory cell array;

(i) programming the cells in the first diagonal of the flash memory cell array in a direction opposite to the first diagonal;

(j) programming the cells except the first diagonal of the flash memory cell array in a direction from a higher address to a lower address; and

(k) reading the cells except the first diagonal of the flash memory cell array in a direction from a higher address to a lower address.

11. The diagonal testing method for flash memories of Claim 10, further comprising the step of:

reading the cells in the first diagonal of the flash memory cell array.

12. The diagonal testing method for flash memories of Claim 1, wherein the flash memory cell array is regarded as several squares and executed in a direction from top to bottom and from left to right.

13. A diagonal testing method for flash memories, comprising the steps of:

erasing a flash memory cell array;

programming cells in a first diagonal of the flash memory cell array in a direction opposite to the first diagonal;

programming the cells except the first diagonal of the flash memory cell array in a direction from a higher address to a lower address; and

reading the cells except the first diagonal of the flash memory cell array in a direction from a higher address to a lower address.

14. The diagonal testing method for flash memories of Claim 13, further comprising the step of:

reading the cells in the first diagonal of the flash memory cell array.

15. The diagonal testing method for flash memories of Claim 13,

further comprising the steps of:

erasing the flash memory cell array;

programming the cells of the flash memory cell array except in the first diagonal;

reading the cells in the first diagonal of the flash memory cell array;

programming the cells in the first diagonal of the flash memory cell array; and

reading the cells of the flash memory cell array except in the first diagonal.

16. The diagonal testing method for flash memories of Claim 13, further comprising the steps of:

programming cells in a second diagonal of the flash memory cell array; and

reading the cells in the first diagonal of the flash memory cell array.

17. The diagonal testing method for flash memories of Claim 13, wherein the first diagonal is a -45° line from the upper left to the lower right of the flash memory cell array, and the second diagonal is a +45° line from the lower left to the upper right of the flash memory cell array.

18. A diagonal testing method for flash memories, comprising the steps of:

erasing a flash memory cell array;

programming cells in a first diagonal of the flash memory cell array in a direction opposite to the first diagonal; and

reading the cells of the flash memory cell array except in the first diagonal.

19. The diagonal testing method for flash memories of Claim 18, further comprising the steps of:

erasing the flash memory cell array;

programming cells of the flash memory cell array except in a first diagonal;

reading the cells in the first diagonal of the flash memory cell array;

programming the cells in the first diagonal of the flash memory cell array; and

reading the cells of the flash memory cell array except in the first diagonal.

20. The diagonal testing method for flash memories of Claim 18, further comprising the steps of:

programming cells in a second diagonal of the flash memory cell array; and

reading the cells in the first diagonal of the flash memory cell array.